

To Cage or Not to Cage Seagrass; Is There Even a Question?

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Diminished water quality has led to the decline of seagrasses and their associated ecosystem services in the Banana River Lagoon (BRL), resulting in increased restoration initiatives. Restoration success may be hindered by herbivory and the addition of herbivore exclusion devices may limit grazing stress on newly established seagrasses. These structures may alter sediment dynamics, influencing seagrass productivity. To test whether herbivore exclusion devices impact restoration success and sediment dynamics, we caged half of our seagrass restoration plots in the BRL. Treatments were monitored monthly for seagrass growth, and at three months for porewater nutrients, sediment bulk density, and carbon to nitrogen ratio. On average, caged plots had 87% more seagrass cover and 81% taller blades than control plots, highlighting the importance of caging newly transplanted seagrasses. There was no significant difference in porewater or sediment characteristics between treatments, suggesting that pedogenesis and nutrient cycling need extended monitoring to capture changes in temporal scales.